

In the Claims

Claims 1-30 (Canceled)

31 (previously presented). A method of determining whether a candidate genomic region harbors a gene associated with a detectable trait comprising determining whether the association of a plurality of biallelic markers located in said candidate genomic region with said detectable trait is significantly different than the association of a plurality of biallelic markers located in a plurality of random genomic regions.

Claims 32-47 (Canceled)

48 (withdrawn). A method of determining whether a candidate genomic region harbors a gene associated with a detectable trait comprising determining in unrelated individuals whether the association of a plurality of biallelic markers located in said candidate genomic region with said detectable trait is significantly different than the association of a plurality of biallelic markers located in a plurality of random genomic regions of said unrelated individuals.